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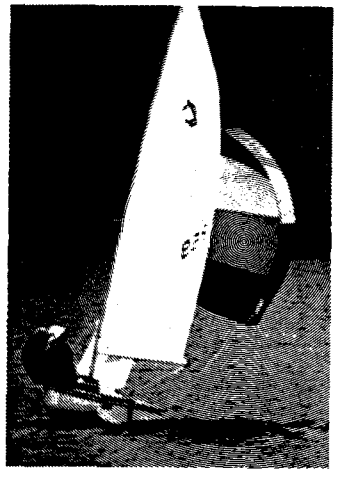

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NATURAL RESOURCES RESEARCH PROGRAM

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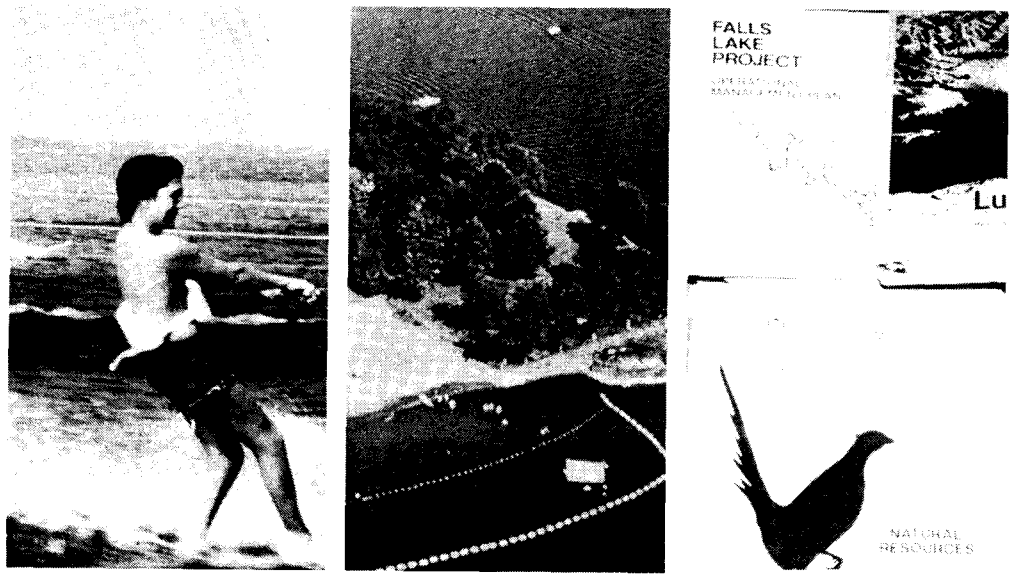

Functional responsibilities: recreation, natural resources, and administrative management

Performance Indicators — Curse or Cure?

by
Gerald T. Purvis
South Atlantic Division

Corps personnel involved in natural resources management need to know what performance indicators (PIs) are; how they were selected; how they are reported, used, and monitored; and how they will be used in the future.

In January 1988, Darrell Lewis, the Chief of the Natural Resources Management Branch in Washington, called me. He wanted to know if I would serve as the chairman of a committee to develop PIs for the Natural Resources Management program Corps-wide. To fully appreciate the significance of the request I restated the task. We were being asked to develop "indicators of performance."

Indicators were also to be developed for the hydropower function, the navigation mission, and for the operations area of responsibility. PIs were to be developed to monitor program execution, forecast future needs, and celebrate successes. While they would be merely descriptive for the first year (FY 89), they would be used as scorecards in the outyears to measure the efficiency and effectiveness of Divisions, Districts, and water resource development projects.

It was obvious to me that if there was to be any chance of developing meaningful PIs that could successfully monitor program execution, the committee would need to be top notch. In developing the committee it was important to have a cross section, representing a geographic as well as command level balance. My attempt was to have a Resource Manager, a District branch employee, and a Division level employee on the committee.

Roger Deitrick, Resources Manager, J. Percy Priest Lake, Nashville District, was our field manager and computer expert. Dwight Quarles, Assistant Chief, Operations Division, Fort Worth District, was our philosopher.

Stan Ebersol, Resource Management Branch, St. Louis District, was our resident engineer and Don Dunwoody, Chief, Natural Resources Management Branch, Missouri River Division, served as the committee agitator, with my assistance. Our resource support and leveler came from Dr. Andy Anderson, US Army Engineer Waterways Experiment Station.

We broke the functional responsibilities into the three broad categories — recreation, natural resources, and administrative management. At the start we saw the need to establish criteria and considerations. We expressed our concerns that the process might require significant resources, command support would be needed to sell the PIs, the program priorities would be required up front, the objectives of the PIs must be clearly explained, and that we must avoid creating a new reporting system or cumbersome verification process. In addition we strongly urged throughout the process that all PIs be reported *only* on an annual basis consistent with the Natural Resources Management System (NRMS) report.

We established several criteria. A PI must be applicable to all levels and existing data systems used whenever possible. The PI had to be flexible and not absolute and had to be understandable and acceptable to field offices. In addition we wanted the PI to be dynamic, permitting change over time, and PIs should be able to reveal successes as well as deficiencies.

We determined that there would have to be a verification process, a method for scoring, field testing, and a reporting procedure established.

Many potential indicators were included, rejected, reinserted, and then removed again, such as established procedures to collect use fees, having established and enforced carrying capacities and contracting procedures. Our attempt was to provide PIs that were measurable and true indicators of performance. Subsequent to our selection of indicators, an executive committee reviewed all PIs from the four broad functional areas and made final recommendations to Headquarters. Those recommendations, which modified our selections, were then revised one last time by the Chief, Operations, Construction, and Readiness Division and published.

The PIs that were selected for the three-year trial (FY 90-92) for the Natural Resources Management function are listed below with their definition, rationale, and reporting requirements.

Completed Operational Management Plans (OMPs)

Definition: The percent of projects having completed and approved OMPs.

Rationale: The OMP is a valuable tool as the Resource Manager's plan for management and administration of the project and measures the planning for an effective management program.

Reporting: Annually through the NRMS.

Project Boundary Percent Marked

Definition: The total miles of marked boundary divided by the total boundary, shown as a percent.

Rationale: This is an essential tool in management and protection of public lands and the prevention of encroachments. It measures one aspect of efficiency of project management by measuring the relative status of resolved boundary concerns.

Reporting: Annually through the NRMS.

Number of Encroachments

Definition: The sum of the existing encroachments and the sum of the resolved encroachments during the previous year.

Rationale: This PI is a measure of the difficulty or complexity of project management. It measures the magnitude, effectiveness, and efficiency of the encroachment management program.

Reporting: Annually through the NRMS.

Recreation Statistics

Definition: This PI comprises totals for visitor hours, revenues, O&M cost, FTEs, and volunteers.

Rationale: While not a true indicator of performance, the magnitude of use and the funding avail-

able to administer the project and that use can be evaluated.

Reporting: Annually through the NRMS.

Economic Impact Per O&M Dollar Expended

Definition: This is the visitor's expenditure for nondurables such as food and gas measured against the cost of project recreational O&M. Starting in FY 90, durables are also included.

Rationale: The general economic activity is associated with the recreational use of the project. This provides a value, or worth, of the program activity in terms of economic output.

Reporting: This PI is figured in two ways. First, it is the total trip expenditures by visitors to Corps-managed developed recreation areas divided by the cost of managing those areas. Second, it is the total trip expenditures by visitors to all *developed* recreation areas (including commercial and outgranted areas) divided by the Corps cost of managing these areas. Total visitor expenditures were calculated by multiplying reported visitation by spending profiles derived from surveys. Visitation data is from the NRMS. The cost data is derived using appropriate cost codes as shown in the end-of-the-year COEMIS reports. This is an annual report.

Revenues

Definition: A summary of various revenues collected at the project.

Rationale: While it was clear that this was not an indicator of performance, it does provide a degree of comparison of revenues collected, which might have a relationship to program magnitude.

Reporting: This information is collected through the Resource Management reporting system as submitted in the Report of Real Estate Receipts. It is an annual report.

Budget Information Performance Indicators

With the agreement of all committees and HQUSACE, all budget-type PIs were rolled up into the Operations Function PIs. These include information which is valuable to the Resource Manager and the District and Division manager of natural resources programs. The percent of on-site funding versus the total O&M budget is provided. The percent of funding to the various stovepipe functions such as planning, engineering, real estate, and operations are included. In-house versus contract activities are measured. A breakdown of the functional responsibilities at the project such as hydropower, flood control, or recreation management are recorded. These data should be beneficial to the local manager for analysis of programming directions and issues.

Additional Performance Indicator

One additional PI was directed by the Assistant Secretary of the Army (Civil Works). The intent of this PI is to measure the effectiveness of programs. The committee expressed grave concerns that this PI could, in fact, not be a measurement of efficiency but a measurement of apathy or lack of sufficient facilities for public use. Our concern was that this PI might promote decisions that result in short-term gain with long-term pain.

Visitor Hours Per Natural Resource Management Cost

Definition: A ratio of visitor hours divided by costs of natural resource management.

Rationale: This PI is designed to measure visitor hours of use realized per O&M dollar expended.

Reporting: This PI is obtained from the annual NRMS.

Summary

As we move into the next phase of analyzing our programs, the peer review process, I see several changes that will be required in the PIs as time passes. Some of these are cosmetic, in specifics, that may allow greater magnitude for analysis. Other changes will be required to refine or expand the PI to the next phase. As an example, as we reach a certain level of completion for OMPs, we will need to modify that PI to encompass quality and comprehensiveness of the OMP. Further, as a committee, we felt very strongly that the need for some of the indicators should be reevaluated, such as, the Revenues Collected and the Recreation Statistics PIs. As stated above, we also question the ultimate results of the PI for Cost per Visitor.

It is important that we continue to look to trends, demographics, and issues that have become apparent and to address these through new PIs. Three such extremely important situations come readily to mind.

If we are to ever provide true, unbiased, visitation for our projects then we must complete *quality recreation use surveys*. We must develop efficient and effective surveys and measure their completion. *Environmental implementation and monitoring to include environmental audits* have become critical to our survival. We will be responsible in this arena and must, therefore, document our performance. The third area that I feel must be continued and expanded is the *measurement of the economic value of our programs* to the quality of American life. Many new facets are potentials for consideration for inclusion in this PI to provide the ultimate results.

Are Performance Indicators then a curse, or are they the cure? We met some of our objectives, but not all. We do have some PIs that certainly are not pure indicators of performance, but we did minimize reporting requirements and did not create any new reporting systems. We also discovered and were able to include the PI on economic impacts, which should prove to be an extremely valuable tool over time. The PIs have not been the death of us as some predicted, but they are also not the method for solving all management shortfalls. I sincerely believe that PIs have value for the Resource Manager and can and should be used for analysis for program planning. To be effective we must ensure that the data used are as accurate as possible.

Performance indicators are here to stay. We cannot take our ball and go home. This is the only game in town and we must play it. So let us, the managers of our programs, make them work for us and not against us. We should determine their usability, not others who may not know the programs well enough to make good decisions.

Gerald T. Purvis is Chief of the Natural Resources Management Division in the South Atlantic Division of the Corps. He has served in various capacities in the National Resources Management functional area with the Corps for 21 years, working at Old Hickory and J. Percy Priest Lakes as a Reservoir Ranger and Reservoir Manager and in the Nashville District, Ohio River Division, and Headquarters. Gerald has a Bachelor of Science degree in Forestry from Mississippi State University.

Providing Security at Campgrounds during Winter

by
Bay Springs Resource Office, Tennessee-Tombigbee Waterway
Mobile District

In the past, gate attendants have been posted at the Piney Grove Campground to collect fees and provide security. The campground was closed at the end of September 1990 because of the shortage of funds. Gate attendants could not be paid because of the lack of funds, which presented a problem of providing adequate security in the campground area. The ranger staff could have provided a degree of security, but not at the desired level. The ranger staff is also normally involved in other work during this season, such as wildlife management activities. Providing a patrol at levels higher than normal would have detracted from this important work.

This problem was solved by soliciting a volunteer caretaker in the *Workamper News$* published at Heber Springs, AR. The volunteer was offered the use of the campsite and their utilities were paid. Mr. and Mrs. Leighton Reynolds from New Hampshire served as volunteer caretakers for the winter. Although the campground was closed, security was provided. During the previous winter, $9,639 was spent on gate attendant contracts. While the caretakers did not perform the duties of a gate attendant since the campground was closed, they provide a valuable service in the security and surveillance they provided at little cost to the government.

Michael Owen Given Award by CECW-ON

The Headquarters Natural Resources Management Branch, CECW-ON, recently recognized Michael Owen, Fort Worth District, for his work on the Natural Resources Management System (NRMS), with an On-the-Spot Award. Mr. Owen, in his capacity as NRMS coordinator for the district, has the responsibility for assuring that the annual update of the NRMS data base is completed in a timely and accurate manner. The Fort Worth District has one of the larger data bases in the system, with 24 projects and 297 recreation areas included.

The Fort Worth District's 1990 NRMS update required very little correction. The high quality of the Fort Worth submittal is a tribute to Mike's dedication, professionalism, and conscientious effort, and was especially appreciated by CECW-ON since it reduced the staff time and effort required for reviewing and correcting the data.

Congratulations to Mike Owen from an admiring and appreciative CECW-ON!

Handicapped Sportsman Wild Turkey Hunt

The Bussey Point management area on Thurmond Lake, popular with primitive weapon hunters in the Southeastern United States, has now been opened to an entirely different group of hunters. Originally established in the 1970s for trapping and restocking wild turkey in Georgia, the management area was later opened for primitive weapon deer hunts and managed by the Corps for quality bucks, including three record-book bucks in the last seven years. Now an additional hunt has been added for handicapped hunters.

This past winter the Savannah District Wildlife Biologist contacted the Georgia Handicapped Sportsman Association concerning a turkey hunt on the management area. The Association President contacted his membership — all confined to wheelchairs — and found considerable interest. The hunt was scheduled for April 12-13, 1991, and handicapped hunters were allowed to use modern shotguns during this special hunt. Supported by the Georgia Department of Natural Resources, the hunt may be expanded to include trophy deer hunts in the fall season.

For information concerning these hunts, contact David Brady at (404) 283-8731.

Editor's Note: The Bussey Point management area was selected as the best bowhunting area in Georgia by the *Georgia Outdoor News*.

Graham Lake MARSH Project, Sardis Lake, Mississippi

The Graham Lake area of Sardis Lake has historically been a favorite place for sportsmen and provides opportunities for bird watching and nature study. Always considered prime for further development of its wildlife potential, the Graham Lake area has several abandoned fields that were previously farmed under the agricultural lease program. Farming ceased, however, when the fields became excessively wet in successive years during the critical spring planting time. A perennial stream along with several intermittent streams supply an abundance of water to the area. The 1,900-acre area has many natural features that lend themselves to the development of a storage pond and a series of small levees.

The Sardis Lake office of the Corps of Engineers, the Mississippi Department of Wildlife, Fisheries, and Parks; the US Soil Conservation Service (SCS); and Ducks Unlimited entered into an agreement to provide wintering waterfowl habitat in the Graham Lake area. The project has been three years in planning, design, and construction. Through the Matching Aid to Restore State Habitat (MARSH) program, Ducks Unlimited provided the funds necessary for construction. Design and engineering were accomplished by the SCS and the area will be managed and maintained by the Mississippi Department of Wildlife, Fisheries, and Parks and the Corps.

Official dedication ceremonies for the Graham Lake MARSH Project were held November 14, 1990. This newly created waterfowl habitat will be regulated to allow water to remain on the area when Sardis Lake is in its winter drawdown stage (conservation pool). The MARSH project consists of 170 acres of shallow ponds and levees, which will be planted in wildlife food crops during summer 1991 and subsequently flooded during the 1991-92 winter. Although the Graham Lake MARSH Project is still in its infancy, it is potentially a "model" waterfowl development that will encourage similar natural resource developments in the Southeastern United States.

For more information concerning this project contact:

Frank Walker, Resource Manager
Vicksburg District, Corps of Engineers
Post Office Drawer 186
Sardis, MS 38666-0186

Extended District Office Concept

The Savannah District has three multipurpose projects on the Savannah River that lay within close proximity to each other: Hartwell, Richard B. Russell, and J. Strom Thurmond Lakes (from north to south).

A District Fisheries Biologist, Wildlife Biologist, Forester, and Landscape Architect have been stationed at the central Richard B. Russell Lake. Supervisory responsibilities for these professional positions are assigned to the District Office. Administrative responsibilities are assigned to the Resource Manager at Richard B. Russell Lake.

Three primary benefits result from this concept:

- These professionals are located in the field and can have direct overview of their programs. They are readily available to the project staff(s) when a problem occurs or their particular expertise is needed.
- The professionals work together as a team to solve problems and develop plans meaningful to the entire District. They minimize conflicts between their programs by communicating daily.
- The District is not burdened with the staggering overhead costs required to support a position in the District Office.

This extended District concept has proven to be a valid, functional, and cost-effective approach to obtain maximum benefit from specialized professional employees. As a group, they have established meaningful dialogue with their State counterparts and are recognized as a knowledgeable source of information concerning forestry, fisheries, wildlife management, park design, and landscape architecture on the Savannah River Project.

For additional information, contact Frank D. Huff at (912) 944-5053.

Modification of McCurdy Boatramp

McCurdy boatramp is one of Enid Lake's most used ramps. It is made of concrete and the adjacent shoreline is lined with riprap. Boaters and fishers complained of damage occurring to their vessels when they were docking and loading passengers and equipment. Windy days only increased this problem. Individuals boating alone had to secure their boat while parking and retrieving their vehicles.

Enid Lake personnel were challenged to resolve this problem, which would involve building a low maintenance docking, loading, and unloading area that would decrease damage caused to boats.

Some of the options and considerations were:

- Applying sand to the adjacent shoreline. Removal of the sand through wave action caused by wind and boats eliminated this option.
- Rubber mats bolted together covering the area. Construction costs, maintenance, and lack of safe footing for visitors were drawbacks.
- A free floating dock that would go up and down with lake levels. Constant maintenance would be required to tighten and loosen cables because of changing lake levels.
- A ramp mounted on tracks with rollers that could be moved manually according to needs. Continuous maintenance (moving the ramp) would be required.
- A concrete ramp covered with inverted plastic GEO blocks. GEO blocks are made from high-strength reinforced plastic, and once placed in concrete are virtually indestructible and maintenance free.

The latter option was adopted and has proven effective. The ramp built is 30 feet wide, requires low maintenance, and provides safe footing for boaters. The GEO blocks do not damage boats and keep the keels of boats from touching the concrete. Although the entire length of the ramp is not complete, other sections are being added as lake levels drop.

These blocks are available from GEOSYSTEMS, 1-800-558-3525.

For additional information, contact the Vicksburg District's Enid Lake Field Office at (601) 563-4571.

NATURAL RESOURCES RESEARCH PROGRAM

This bulletin is published in accordance with AR 25-30. It has been prepared and distributed as one of the information dissemination functions of the Environmental Laboratory of the Waterways Experiment Station. It is primarily intended to be a forum whereby information pertaining to and resulting from the Corps of Engineers' nationwide Natural Resources Research Program can be rapidly and widely disseminated to Headquarters, and Division, District, and project offices as well as to other Federal agencies concerned with outdoor recreation. Local reproduction is authorized to satisfy additional requirements. Contributions of notes, news, reviews, or any other types of information are solicited from all sources and will be considered for publication so long as they are relevant to the theme of the Natural Resources Research Program, i.e., to improve the effectiveness and efficiency of the Corps in managing the natural resources while providing recreation opportunities at its water resources development projects. This bulletin will be issued on an irregular basis as dictated by the quantity and importance of information to be disseminated. The contents of this bulletin are not to be used for advertising, publication, or promotional purposes. Citation of trade names does not constitute an official endorsement or approval of the use of such commercial products. Communications are welcomed and should be addressed to the Environmental Laboratory, ATTN: J. L. Decell, U.S. Army Engineer Waterways Experiment Station, (CEWES-EP-L), 3909 Halls Ferry Road, Vicksburg, MS 39180-6199, or call AC (601) 634-3494.

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